Performance Data Sheet

AE4430E-DS1A

General Information

Model	AE4430E-DS1A	**Refrigerant**	R-22
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	127V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°F)		Condensing Temperature (°F)						
		80	**90**	**100**	**110**	**120**	**130**	**140**
5	Btu/h	1480	1390	1300	1200	1100	998	900
	Watts	284	285	288	291	293	293	291
	Amps	4.73	4.76	4.79	4.80	4.80	4.79	4.78
	Lb/h	18.1	17.7	17.2	16.6	15.9	15.1	14.4
10	Btu/h	1700	1610	1500	1390	1270	1160	1040
	Watts	289	293	298	304	309	313	315
	Amps	4.75	4.79	4.81	4.83	4.84	4.84	4.84
	Lb/h	20.8	20.5	19.9	19.2	18.4	17.5	16.7
15	Btu/h	1950	1840	1730	1600	1470	1330	1200
	Watts	294	299	307	315	324	331	337
	Amps	4.77	4.81	4.84	4.86	4.88	4.89	4.89
	Lb/h	23.9	23.5	22.9	22.1	21.2	20.3	19.3
20	Btu/h	2230	2110	1970	1830	1680	1530	1380
	Watts	298	305	314	325	336	347	356
	Amps	4.78	4.82	4.86	4.89	4.92	4.94	4.95
	Lb/h	27.3	26.9	26.3	25.4	24.5	23.4	22.2
25	Btu/h	2540	2400	2250	2090	1920	1750	1580
	Watts	301	309	320	333	347	361	374
	Amps	4.79	4.84	4.88	4.92	4.96	4.99	5.02
	Lb/h	31.1	30.7	30.0	29.1	28.0	26.9	25.6
30	Btu/h	2870	2710	2550	2370	2180	1990	1800
	Watts	303	313	326	341	357	373	389
	Amps	4.80	4.85	4.90	4.95	4.99	5.04	5.08
	Lb/h	35.3	34.9	34.1	33.2	32.0	30.7	29.3
35	Btu/h	3230	3060	2870	2670	2470	2260	2040
	Watts	306	316	330	347	365	384	403
	Amps	4.80	4.86	4.92	4.98	5.03	5.09	5.14
	Lb/h	39.9	39.4	38.6	37.6	36.4	35.0	33.5
40	Btu/h	3620	3430	3220	3000	2780	2540	2300
	Watts	308	320	335	353	373	394	415
	Amps	4.79	4.86	4.93	5.00	5.07	5.14	5.21
	Lb/h	44.9	44.4	43.6	42.5	41.2	39.7	38.1

45	Btu/h	4040	3830	3600	3360	3110	2850	2590
	Watts	311	323	339	358	380	403	427
	Amps	4.78	4.86	4.94	5.02	5.10	5.18	5.27
	Lb/h	50.3	49.8	49.0	47.9	46.5	44.9	43.1
50	Btu/h	4490	4250	4000	3740	3470	3190	2900
	Watts	315	327	343	363	386	411	437
	Amps	4.76	4.85	4.94	5.03	5.13	5.23	5.33
	Lb/h	56.2	55.7	54.9	53.7	52.2	50.5	48.6
55	Btu/h	4960	4710	4440	4150	3850	3540	3230
	Watts	319	331	348	369	393	419	447
	Amps	4.73	4.83	4.94	5.04	5.15	5.26	5.38
	Lb/h	62.6	62.1	61.2	60.0	58.4	56.6	54.6
60	Btu/h	5470	5200	4900	4590	4260	3930	3580
	Watts	325	336	353	374	399	427	456
	Amps	4.69	4.81	4.92	5.04	5.17	5.30	5.44
	Lb/h	69.5	69.0	68.1	66.8	65.2	63.3	61.2

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.234293E+03	4.121444E+02	3.983702E+00	7.550783E+00
C2	4.662722E+01	2.534386E-01	1.035941E-02	3.442441E-01
C3	1.105708E+01	-4.148641E+00	1.556725E-02	2.736936E-01
C4	6.895558E-01	8.444697E-03	-1.529520E-04	5.452691E-03
C5	-4.254583E-02	-1.517992E-02	-1.784625E-04	3.227940E-03
C6	-1.702811E-01	4.235164E-02	-9.036947E-05	-2.765278E-03
C7	6.918762E-04	3.205419E-04	-1.071392E-06	2.588500E-05
C8	-2.344901E-03	-4.970973E-04	1.822699E-06	3.663842E-06
C9	-9.217796E-04	3.872605E-04	1.228964E-06	-2.220198E-05
C10	4.857642E-04	-1.448660E-04	1.240381E-07	7.567789E-06

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

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General Information

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Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	127V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)			
		30	40	50	60
-15	Btu/h	1430	1260	1080	900
	Watts (Power)	285	289	293	291
	Amps	4.75	4.79	4.80	4.78
	Lb/h	17.9	17.0	15.7	14.4
-10	Btu/h	1840	1630	1400	1170
	Watts (Power)	296	308	322	333
	Amps	4.79	4.84	4.87	4.88
	Lb/h	23.1	22.0	20.5	18.7
-6.7	Btu/h	2160	1910	1650	1380
	Watts (Power)	301	318	338	356
	Amps	4.81	4.87	4.92	4.95
	Lb/h	27.1	25.9	24.2	22.2
-5	Btu/h	2330	2070	1790	1500
	Watts (Power)	304	323	345	367
	Amps	4.82	4.89	4.94	4.99
	Lb/h	29.3	28.1	26.3	24.2
0	Btu/h	2910	2600	2250	1890
	Watts (Power)	310	334	364	395
	Amps	4.83	4.93	5.02	5.10
	Lb/h	36.8	35.5	33.5	30.9
5	Btu/h	3580	3210	2790	2360
	Watts (Power)	315	343	378	418
	Amps	4.83	4.96	5.09	5.22
	Lb/h	45.7	44.2	41.9	39.0
7.2	Btu/h	3910	3500	3060	2590
	Watts (Power)	318	346	384	427
	Amps	4.83	4.97	5.12	5.27
	Lb/h	50.0	48.5	46.1	43.1
10	Btu/h	4350	3900	3410	2900
	Watts (Power)	321	351	391	437
	Amps	4.81	4.98	5.15	5.33
	Lb/h	56.0	54.4	51.9	48.6

15	Btu/h	5210	4680	4110	3510
	Watts (Power)	330	360	403	454
	Amps	4.77	4.97	5.19	5.43
	Lb/h	67.8	66.2	63.4	59.8

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.499907E+03	3.261265E+02	4.450402E+00	3.387083E+01
C2	1.543977E+02	1.208423E+00	-6.192518E-03	1.549436E+00
C3	-7.198367E+00	-3.752712E+00	1.590698E-02	3.267725E-01
C4	2.206243E+00	7.552312E-02	-6.398328E-04	2.609786E-02
C5	-8.152274E-01	-7.195870E-02	5.457434E-05	6.614457E-03
C6	-4.961888E-01	1.323114E-01	-1.267973E-04	-8.907517E-03
C7	4.035022E-03	1.869400E-03	-6.248358E-06	1.509613E-04
C8	-1.367546E-02	-2.899071E-03	1.062998E-05	2.136753E-05
C9	-5.375819E-03	2.258503E-03	7.167318E-06	-1.294819E-04
C10	2.832977E-03	-8.448585E-04	7.233902E-07	4.413535E-05

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

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